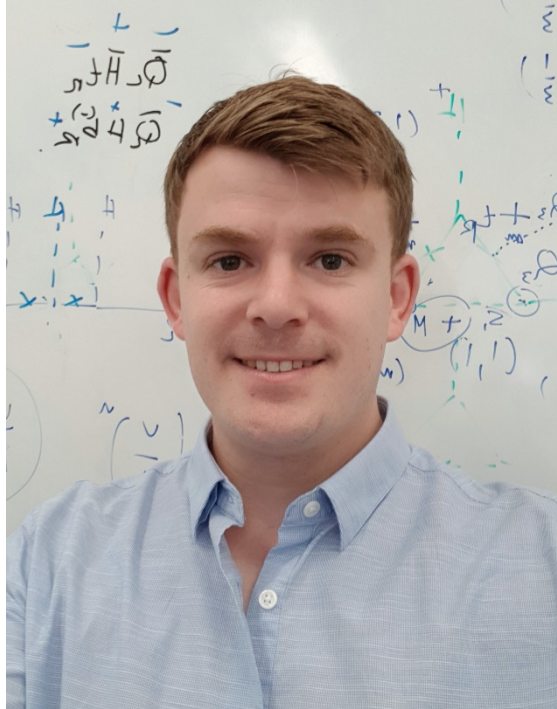


HEP SEMINAR



Dr Peter Cox
University of Melbourne

Detecting light dark matter with phonons

For dark matter masses below an MeV, the inverse momentum transfer in direct detection experiments can be larger than the inter-atomic spacing. In this regime the scattering is no longer described by individual nuclear recoils, and the relevant degrees of freedom are collective modes of the target, such as phonons. A promising strategy for the direct detection of light dark matter is to search for individual phonon excitations in a crystal. In this talk, I will discuss various aspects of dark matter-phonon scattering and the implications for future experiments.

Date:	Thursday 19 March
Time:	11am
Venue:	L1, Seminar Room 107, 10 College Walk, Clayton

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